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(54) Title: **USE OF LACTITOL FOR IMPROVING INTESTINAL MICROFLORA**

(57) Abstract: The present invention relates to the use of lactitol in the preparation of a nutritional preparation for improving intestinal microflora, in particular in an amount of 5 to 15 g lactitol per daily dose. The nutritional preparation can be a food supplement or a food product. It is particularly beneficial in the prevention of intestinal infections, colon cancer, diarrhoea or in enhancing immunity.



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The preparation of the invention can be a food supplement, a food product or a complete food. In a food supplement the lactitol can be administrated as such, for instance in a tablet or powder. Other beneficial components can be added to the food supplement or food such as vitamins and minerals.

The food product of the invention can be a conventional food product to which the lactitol has been added. Examples of such products are candy bars, candy, dairy products, bakery products, etc.

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Example

To test if lactitol in a food product improves the gut microflora of healthy people, 10 g of lactitol was administered to 25 healthy subjects every day for a week. The lactitol was administered in a chocolate bar. As a placebo, a sugar containing chocolate bar was administered to another group of 25 persons. The test was performed as a double blind randomized test.

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From the test persons faeces were collected on day 0 and 7. In these faeces the amount of different bacteria was counted, see Table 1. It was significantly proven that 10 g lactitol a day increased the amount of bifidobacteria in the colon. The increase in the amount of bifidobacteria has been defined as a prebiotic effect.

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Table 1

Bacteria	Placebo		10 g Lactitol	
	0	7	0	7
Total aerobes	6.75	6.98	6.76	6.88
Cliforms	5.77	6.22	5.92	5.62
Anaerobes	11.58	11.96	11.77	11.91
Lactobacilli	3.80	3.75	3.70	3.86
Bifidobacteria	9.48	9.62	9.37	10.05

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, FSTA

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 760 055 A (HARJU MATTI E ET AL) 26 July 1988 (1988-07-26) column 2, line 12-15; table 1 column 2, line 53-58; example 1 column 4, line 5-20; claim 1 column 2, line 66 -column 3, line 9 ---	1-7
X	EP 0 464 362 A (VALIO MEIJERIEN) 8 January 1992 (1992-01-08) page 1, line 22-31; example 1; table 1 page 1, line 51-58 ---	1-7
X	GB 2 113 998 A (CV CHEMIE COMBINATIE AMSTERDAM) 17 August 1983 (1983-08-17) page 1, line 37-45 page 1, line 71-99 --- -/-	1-7

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Information on patent family members

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